

UME KBUBU:
HOUSEHOLD GRANARY AND FOOD SECURITY
IN TIMOR TENGAH SELATAN

by

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THESIS ABSTRACT

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Title: *Ume Kbbubu*: Household Granary and Food Security in Timor Tengah Selatan

Food security is a critical issue that has a prominent impact on human well-being, especially for the vulnerable population who has minimal resilience to the impact of food insecurities. Achieving food security is a continuous challenge that is faced by not only developing countries but also developed countries. Differences in political, economy and social structures contribute to the severity and magnitude of the impact on affected population.

This thesis looks at the contribution of indigenous knowledge in achieving food security by analyzing the practices of *ume kbbubu*, or “household granary,” in Timor Tengah Selatan located in Indonesia. This thesis examines the practice of using, filling, and maintaining granaries by analyzing the traditional and cultural values that support *ume kbbubu* and how this practice can support local food security through adaptation and new uses by farmers’ groups.

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CHAPTER I

INTRODUCTION

This thesis looks at the contribution of indigenous knowledge in achieving food security, by analyzing the practices of *ume kbubu*, or “household granary” in Timor Tengah Selatan Regency, East Nusa Tenggara. This study provides a picture of the condition of the local food system at the household level and the significance of the granary itself to the livelihood of the communities in the area. Culture and traditional knowledge play a crucial role because they reinforce the fact that local food systems have been constructed over many generations, and in that time people have developed practices of resilience adapted to local conditions. This paper examines the practice of using, filling, and maintaining granaries by analyzing the traditional and cultural values that support *ume kbubu* and how this practice can support local food security through adaptation and new uses by farmers groups.

Food security is a critical issue that has significant impact on human well-being. This is especially true for vulnerable populations, which have limited resilience in the face of food insecurity. The rise of food prices and food insecurity around the world underlines the importance of delivering concrete responses to tackle problems faced by these vulnerable populations. Achieving food security is a continuous challenge not only to developing countries but also developed countries.

In a diverse country like Indonesia, food security policies would ideally accommodate the whole population. Differences in political, economic and social structures contribute to the degree of impact and the severity and magnitude of food insecurity for affected populations. The government’s decentralization reform,

implemented in 1999, has given more authority to regional governments, allowing them to manage their own resources. This decentralization enables regional governments to adapt national food security policies based on their own resources and interests. Both central and regional governments play important roles in achieving food security. As the central government oversees the food security condition at the macro level, appropriate solutions to strengthen local food systems can be established in all regions. In Indonesia, *lumbung*, or granary, is used as a way to fend off food insecurity at various levels: villages, regencies, and provinces. It functions as a place where people gather and store crops.

Ume kbubu means a “rounded kitchen” in *Bahasa Dawan*, the language of the Dawan people of Timor Tengah Selatan, and is the equivalent of *lumbung* in that area. *Ume kbubu* is found in every residence. For the people in the area, *ume kbubu* is an essential part of their daily lives. In the past, *ume kbubu* served as a dwelling place where people could cook, store food, and save seeds for the next planting season. Even though people have moved to permanent houses, *ume kbubu* continues to be used as a food and seed storage and kitchen. The constant warmth from the fire pit creates a comfortable place for elders and even a recovery place for mothers during childbirth¹.

Research Questions

At the beginning of my research journey, I intended to analyze the three pillars of food security at the household level, focusing on food distribution in Timor Tengah Selatan regency. However, after starting my internship with a local NGO in the regency, I grew interested in what the local people commonly called *ume kbubu*, the household

¹ Yemilo. Libye. Personal Interview.

granary. The practices of *ume kbubu* must be understood in the context of food security conditions in the regency.

The questions that guide my research are:

1. What is the current condition of food security in Timor Tengah Selatan?
2. How do people in Timor Tengah Selatan use *ume kbubu*? What are the rules and routines are associated with the practices of *ume kbubu*?
3. To what extent does the government, as an external factor, influence the practices of *ume kbubu*?

Research Rationale and Methodology

Considering the inequality and development gap between the eastern provinces of and main islands such as Java, I decided to conduct my research in East Nusa Tenggara. My prior travel to Flores Island sparked an interest in visiting other islands in the province. With Indonesia's rice-dominant food policy, I wanted to study in an area that is culturally different than Java. I conducted the research over a ten-week period between April and June 2012. In those ten weeks I completed an internship with a local NGO based in Timor Tengah Selatan regency. The research is conducted based on a qualitative research method. It includes interviews, personal observation, and a literature review. It also includes other supporting data such as government records retrieved from the Central Bureau Statistics, Ministry of Agriculture and East Nusa Tenggara regional databases.

To gain a deeper understanding about the local context and life in the area, I interned with Yayasan Aksi Kemanusiaan (ANIMASI),² a local NGO that established an assistance program called "*Desa TTS yang Berkecukupan Pangan Melalui Lumbung*

² English translation: Humanity Action Foundation.

Kampung,³ or in short *Lumbung Kampung*, which specifically targeted farmers groups and village officials in 10 villages within the regency of Timor Tengah Selatan (see Appendix A: Internship with ANIMASI). Two direct partners are served by the organization. The first partner is Village Government. It includes Village Head, Village Secretary, and four main staff. The second partner is *kelompok tani* or farmers groups.⁴ Both partners are from the following ten villages: Noemeto, Nusa, Olais, Oekam, Oepliki, Naip, Eno-neontes, Oof, Naukake, and Bone. These villages represent five districts under the regency. Currently, there are 60 farmers groups, with almost 1,200 members that receive direct support from the organization. Three types of farmers groups are included in the program: males, females, and mixed. The total members in each group vary from 20 to 30 people who mostly live in the same village. *Lumbung Kampung* which is an expansion of *ume kbubu* can be found in the backyard of most households in the villages. ANIMASI believes that broadening the use of the *lumbung* will strengthen the community. *Lumbung Kampung* is not only about building a bigger *lumbung*, but incorporates several actions that are sustainable for the community.

Due to time and weather constraints, I chose the participants based on convenience sampling. All participants resided in two villages: Village A and Village B. The total of five participants consisted of two women and three men.

All interviews were conducted during the last three weeks of my internship and occurred during the day, mostly in the afternoon because all respondents worked in the

³ English translation: Villages in TTS Become Food Secure by Building Village Granaries.

⁴ Farmers groups were set up by the Ministry of Agriculture extension service. To be recognized by the Ministry of Agriculture, a new group needs to meet minimum requirements such as number of members and types of production. There are four levels in the farmers group program. Each level has certain minimum requirements. Once a group becomes more advanced, they can move up to a higher level.

field early in the morning. The average time for each interview was approximately an hour. Having one-to-one interviews was unlikely to happen, since every time an interview was conducted, relatives or friends of the participants were eager to be part of the discussion and share their opinion.

The interviews were conducted in Indonesian. Most Timor adults can speak *Bahasa Indonesia* fluently, despite their preference for communicating in *Bahasa Dawan*, the local dialect. As a fluent Indonesian speaker, I did not need a translator. The questions were written in formal Indonesian. As an interviewer, I had planned to speak using formal Indonesian as a courtesy, being mindful that all participants were older than myself. However, during my first interview, I noticed that speaking in formal Indonesian did establish a formal interaction, causing the first respondent to answer in a more reserved way. I soon presented my questions by combining both formal and informal *Bahasa Indonesia* to create a more comfortable conversational tone. I initially planned to record the interviews by taking notes and capturing keywords, but I realized my notetaking was a distraction to my first respondent. Then, with participants' permission, I chose to record all interviews. Using a voice recorder allowed me to communicate with my respondents better. After transcribing the interviews, I reviewed them to discover emerging patterns and themes.

My primary method of data collection was through interviews. Prior to the interviews, I informed the participants about my project. The first part of the questionnaire included questions about participants' basic demographic information. Knowing their origin and current residence proved helpful in determining the rules and the actual practice of *ume kbubu*. The second part of the questionnaire asked for

information about household food sources. This information helped me to understand each respondent's sources of food. This particular section also asks about land ownership. The third part of the questionnaire is focused on food consumption, including patterns of food consumption. Even without information on calorie intake, the information offered a picture of daily food consumption patterns. The questions continued to the topic of *ume kbubu*. Since all respondents are members of a farmers group, I decided to add another set of questions to gain more information about their involvement with their own group.

On the first day of my internship, Matheus Krivo, my supervisor, explained thoroughly the vision of the organization and the goals and objectives of the project. He encouraged me to start my internship by assisting the field staff in planning an event to officiate three farmers groups in Eno-neontes village. Working with the organization opened opportunities for me to participate in both internal and external meetings which included staff meetings, farmers groups' meetings, various workshops, and other meetings where I observed the interactions between the NGO staff, farmers and their families, administrative village staff, and local division staff of the Ministry of Agriculture.

Additional Interview

In the past, the people of East Nusa Tenggara practiced only an oral tradition, with no written records, as opposed to mixture of oral and written recording of tradition and history practiced by the ethnic groups in Java and Sumatra who record their past through writing. On Timor Island, important history sources include folklore and oral tradition. Folklore is commonly shared by "*bisik-bisik*" or "whispering," meaning that the stories that contain the history of the people were told only on special occasions by

certain people.⁵ *Budaya tutur*, or oral tradition, ensures that the stories from the ancestors were passed on to the next generations. However, with this practice information can be missing or changed because stories are told based on what the storyteller remembers.

In tracing the history of *ume kbubu*, my colleagues in ANIMASI suggested that I should meet with a respected and notable elder who lives near Soe. During the precolonial era of kingdoms, *Usif* was a name given to the king and *bangsawan*, or lords. During colonialism, the Dutch implemented a colonial administrative structure, divided the island into smaller districts, and overthrew the long established monarchy. The power of the kings was removed. However, the people still viewed their overthrown leader as king and remained symbolically loyal to him. Nowadays, *Usif* is considered to be the *pemangku adat* or elders of the community.⁶ In the communities of TTS, *Usif* is considered to be a person who is respected and who holds an important place in the community. He is responsible for making sure that the tradition and cultural life follows the correct standard and procedures. People in the community regard him as the person who can mediate conflicts, who can speak for them, and who understands the history of their culture. The title of *Usif* is inherited.

Interpreting Experience and Oral History

I asked all respondents their childhood experience in using *ume kbubu*. When I asked about the rules and routines, some used the phrase “*katanya...*” “[they] said...,” “*kata orang dulu itu...*” “based on what people said in the past...,” or even “*sudah lama begitu memang,*” meaning “it has been like that for a long time.” In *Oral Tradition as*

⁵ Jacob Wadu et al., *Sejarah Pemerintahan Kabupaten Timor Tengah Selatan*, 24

⁶ *Ibid.*, 55

History, Jan Vansina provides helpful insights in interpreting experience and oral history. The difference between oral source and written source is the “subjectivity of the encoder of the message.”⁷ Oral source is considered intangible, which means that the stories I recorded from all respondents were reproduced and interpreted by myself as storyteller. Another point that Vansina raises is that “each culture has its own notions of time, and calendars do not exist in oral society.”⁸ This means that retrieving specific information about the origin of practices of *ume kbubu* may not be possible.

Limitation

The research was limited by various factors including sample size. Due to limited access and time, I was able to conduct interview with six people. During my research, I lived at Soe where ANIMASI’s office is located. Several villages that partnered with the organization were difficult to reach by especially with limited transportation access. Another limitation is lack of supporting data that could contribute to the analysis of the current data such as calculations of food consumption, household income throughout the whole year including harvest season and planting season. Interviewing village officials and district staff of Ministry of Agriculture could also add further perspectives in analyzing the current development of food security policies. Adding more respondents with diverse background could be done, including crosscheck interviews with another Usif, to provide a clearer understanding of the history.

⁷ Jan Vansina, *Oral tradition as history*, 175.

⁸ *Ibid*, p. 173.

Okomama: A Symbol of Mutual Respect

I am grateful for the people who took time out from working in the field to share their stories about their lives. During my time working in the area, one thing I found worth noting is the practice of *okomama*. This practice is highly important in the social lives of the local people. *Okomama* is a small woven basket made out of rattan. During special occasions, for example, when people need help from other or invite others to their wedding, they will fill the basket with betel nut, betel leaves, slaked lime, money, and sometimes with a bottle of *sopi*, a local type of alcoholic beverage. In everyday practices, when people meet on a street, they will stop to exchange betel nut, betel leaves, or slaked lime with each other. This practice symbolizes the act of respecting one another.

Understanding the importance of *okomama*, I brought the respondents *sirih pinang*⁹ before asking them to share their stories related to my project. Chewing *sirih pinang* together allowed me and my participants to bond and share laughter with each other.

Plan of the Thesis

This chapter has included a brief introduction to my study, including my research questions and methodology. Chapter II discusses the analysis of food security and the contribution of traditional knowledge in achieving food security. Chapter III provides an illustration of the food landscape in Timor Tengah Selatan, including background of Indonesia and East Nusa Tenggara. Chapter IV discusses the physical structure and practices of *ume kbubu* and specific roles related to the practices of *ume kbubu*. Chapter V discusses the continuum of practices of *ume kbubu* and the contribution of government

⁹ Common phrase to describe betel nut and betel leaves.

policies at three levels: village, provincial, and national. Lastly, chapter VI concludes the study and offers recommendations.

CHAPTER II

FOOD SECURITY AND INDIGENOUS KNOWLEDGE

Food Security

Food security concerns the availability of food and how one is able to access it. The right to food is a basic human right.¹⁰ Today approximately 925 million people do not have enough food to eat, and 98% of them live in developing countries. Almost 65% of the world's hungry live in only seven countries, including India, China, Pakistan, Ethiopia, the Democratic Republic of Congo, Bangladesh, and Indonesia. Addressing food security is a priority for nations responding to the social, economic, and political challenges currently in the world.

In defining food security, I offer two definitions from the Indonesian government and the World Summit on Food Security. The Indonesian government defines food security as:

a condition where the food supply has fulfilled the needs of the people and the country which is reflected by adequate food availability in terms of quantity and quality, safe, diverse, nutritious, equitable, and affordable. It also does not conflict with religion, beliefs, and culture of the community, to be able to live healthy, active, productive and sustainable.¹¹

The Declaration of The World Summit on Food Security states that:

Food security exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life. The four pillars of food

¹⁰ United Nations. "The Universal Declaration of Human Rights," 10 Dec, 1948, Article 25, <http://www.un.org/en/documents/udhr/index.shtml>

¹¹ Government of Indonesia. *Undang-Undang Republik Indonesia Nomor 18 Tahun 2012 Tentang Pangan* [Law 18/2012 on Food], p. 3.

security are availability, access, utilization and stability. The nutritional dimension is integral to the concept of food security¹²

According to the 1996 World Food Summit, food security is built on three pillars: food availability, food access, and food utilization.¹³ All components are necessary for the well-being of individuals, households, and the nation's food economy.¹⁴ Food availability refers to "sufficient quantities of food available on a consistent basis."¹⁵ Food access means "having sufficient resources to obtain appropriate foods for a nutritious diet."¹⁶ When exploring how people access to food, the condition of the local economy needs to be considered.¹⁷ Food utilization is "appropriate use based on knowledge of basic nutrition and care, as well as adequate water and sanitation."¹⁸

In *Providing Food Security for All*, Mohiuddin Alamgir and Poonam Arora propose that food security can be analyzed at four different levels: household, sub-national, national, and global.¹⁹ To better understand food security, analyzing household food security is highly important. Examining the ability of each household member to access enough food provides an understanding as to whether a household is food secure

¹² World Summit on Food Security. "Declaration of The World Summit on Food Security," November 2009, p. 1.

¹³ World Health Organization. "Food Security," <http://www.who.int/trade/glossary/story028/en/>

¹⁴ Thompson, Brian, Leslie Amoroso, and Janice Meerman. "Promoting the Expression "Food and Nutrition Security"". http://www.fao.org/ag/agn/nutrition/docs/Food_and_Nutrition_Security-Strategy_Note.pdf

¹⁵ World Health Organization. "Food Security."

¹⁶ Ibid.

¹⁷ World Food Programme. *Emergency Food Security Assessment Handbook*, p. 44. http://home.wfp.org/stellent/groups/public/documents/manual_guide_proced/wfp203246.pdf

¹⁸ World Health Organization. "Food Security."

¹⁹ Mohiuddin Alamgir and Poonam Arora. *Providing Food Security for All*, 25.

or not. Key elements included in this level are production, access, and household coping strategies.

Indigenous Knowledge

To analyze the condition of food security at the household level, we must study the actions of individuals and households within their own local food systems.

Individuals or households may differ in how they produce, gather, and prepare food.

Paying attention to culture and traditional knowledge allows us to understand how people actually connect with their food and their environment. Indigenous knowledge can be stored in:

peoples' memories and activities and is expressed in stories, songs, folklore, proverbs, dances, myths, cultural values, beliefs rituals, community laws, local language and taxonomy, agricultural practices, equipment, materials, plant species, and animal breeds.²⁰

A society may produce a new knowledge or adapt old knowledge to its current social structure.²¹

Granary as a Coping Strategy

The possibilities of being at risk and vulnerable to factors that cause food insecurity can lead people to establish various coping strategies such as building food storage or granaries. Many kinds of food storage have existed for many generations, established by governments and community organizations. In southern China, various types of granaries can be found in Foshan: *yichang*, “gentry-run charitable granaries”

²⁰ Louis Grenier, *Working with Indigenous Knowledge*, 2.

²¹ Paul Sillitoe, and Johan Pottier, *Development and local knowledge: new approaches to issues in natural resources management, conservation and agriculture*, ed. Alan Bicker, 28.

connected with the temples and *gechang* “community granaries,” are in addition to the official granaries in China.²² In the 1970s, community-managed granaries in western Africa were established because of draughts that occurred in the Sahel region.²³ The food storage idea was later expanded to other regions such as southern Africa.

²² Mary B. Rankin, “Managed by the People: Officials, Gentry, and the Foshan Charitable Granary, 1795-1845,” in *Late Imperial China*, 2.

²³ Martien Hoogland and Peter Holen. “Agrodok 25 Granaries”. 8.

CHAPTER III

THE FOOD LANDSCAPE IN TIMOR TENGAH SELATAN

“Kami berhak menentukan sendiri apa yang ingin kami makan dengan apa yang bisa kami hasilkan. Kami memiliki jagung, kelapa, gewang, lontar, ubi-ubian, pisang, dan ribuan tanaman pangan yang memberikan kami tenaga dan gizi yang layak. Kami ingin semuanya lebih subur walau iklim menantang.”

“We have the right to decide what we want to eat with what we can produce. We have corns, coconuts, gewang palms, sugar palm, roots, bananas, and thousands of crops that provide us strength and sufficient nutrients. We want everything to be more fruitful even when the climate is unfavorable.”

People of *Tiga Batu Tungku*: Banam-Oenam-Onam, Declaration of Food Sovereignty, 28 Mei 2011, Nausus Mollo Utara²⁴

Despite a slight decline in food prices in the end of 2010, global food prices continue to be high and volatile. The spike of food prices raises concerns about the deterioration of food security conditions, especially in the developing countries. Not only food prices but other factors contribute to the deterioration of food security such as water scarcity, land degradation, and conversion of food staples into biofuels.²⁵ Combined with the increasing numbers of low-income families dropping below the poverty line, accelerating food prices have led to strong demand for access to affordable food. ASEAN²⁶ has noted concerns in the continuing risks of rising food and commodity prices and has asked all its country members to put food security to the top of their agendas. As the world's largest producer and exporter in palm oil industry, Indonesia currently

²⁴ “Deklarasi Nausus 2011,” last modified February, 2012, accessed April 23, 2013, <http://www.jatam.org/deklarasi-nausus-2011.html>.

²⁵ Lawrence, Geoffrey, Kristen Lyons, and Tabatha Wallington, *Food Security, Nutrition and Sustainability*, 23.

²⁶ ASEAN is acronym for Association of Southeast Asian Nations.

depends on imports for essential food items such as rice, corn, and sugar. Therefore, the country may be vulnerable to future price shocks. According to AUSAID, “around 120 million Indonesians live on less than \$2 day,” which is mostly spend on food.²⁷ Most of these people live in the rural areas and work as farmers, which means that rising food and commodity prices will place them in a vulnerable situation.

Background: Indonesia

An archipelago between the Indian Ocean and the Pacific Ocean, Indonesia is one of the richest countries in terms of biodiversity. The country area is 190,457,000 hectares, and the land area is 181,157,000 hectares. It has extensive natural resources, which include tin, copper, gold, crude oils, and natural gas. Based on Indonesia’s Central Bureau Statistic, the total population in 2010 was 237,556,363,²⁸ which has increased fifteen percent since 2000.²⁹

The climate condition of Indonesia is tropical with a diverse geography. Located in the “Ring of Fire” and consisting of an archipelago of more than 17,000 islands from the Indian Ocean to the Pacific Ocean, natural disasters have become significant factors in the condition of food security of the country. These include significant volcano activity, droughts, tsunamis, earthquakes, and occasional floods. Based on the “Monthly Price and Food Security Update August 2011 Indonesia,” WFP states that 13% of the Indonesian population lives below the national poverty line, which mostly accounts for

²⁷ Jacqui De Lacy, “Supporting food security and rural development in Indonesia,” last accessed June 10, 2013. Australian Aid. <http://ausaid.govspace.gov.au/2011/12/08/supporting-food-security-and-rural-development-in-indonesia/>

²⁸ Statistics Indonesia, “Population of Indonesia by Province,” last accessed February 23, 2012. http://www.bps.go.id/eng/tab_sub/view.php?kat=1&tabel=1&daftar=1&id_subyek=12¬ab=1

²⁹ Ibid.

people in eastern parts of the country such as East Nusa Tenggara, West Nusa Tenggara, and Papua.³⁰ In East Nusa Tenggara, one million people live under the national poverty line which accounts for 3.3% of poor people in the country.

Indonesia has a three-tiered government and parliamentary structure, which consists of central, provincial, and district or municipal governments (see Figure 1). Provincial level government is divided into 34 provinces which includes five special provinces: Jakarta, Nanggroe Aceh Darussalam, Yogyakarta, Papua, and West Papua. All heads of local governments, including governors, regents, and mayors, are elected by public election. Each province is headed by a governor, which directly reports to the President. At the district or municipal levels, both regency and city are in the same level. Regency and city differ in the size of area, demographic, and main local business area. The head of regency and city—the regent and mayor—appoints heads of subdistricts and heads of villages in their area.

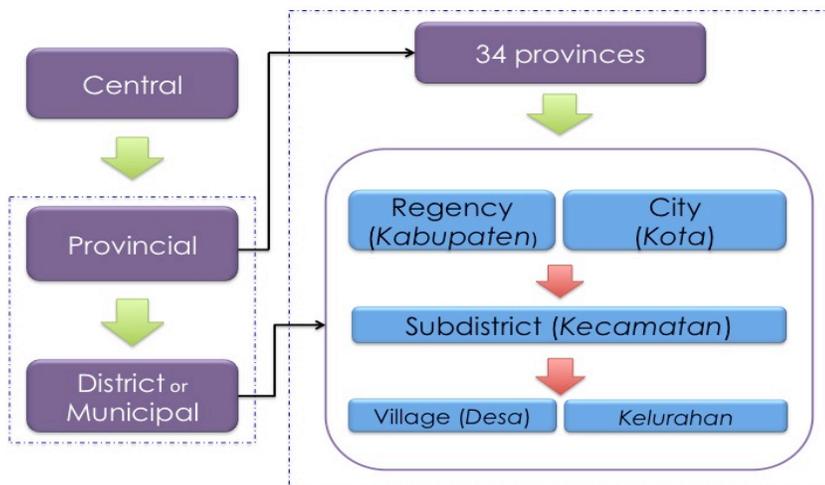


Figure 1. Administrative Structure of Indonesian Government

³⁰ World Food Programme, “Monthly Price and Food Security Update: August 2011 Country Indonesia,” 3. <http://documents.wfp.org/stellent/groups/public/documents/ena/wfp239956.pdf>

With increasing demand for democracy after the New Order era, Indonesian Parliament passed Law 22/1999 on Regional Governance and Law 25/1999 on Fiscal Balance between the Center and the Regions. Regional governments are given more authority to perform public service for their people. The decentralization reform was expected to open opportunities for regional governments to be in charge of its provincial and district or municipal development based on their own resources and capabilities. Relating to the efforts of the state in achieving food security in Indonesia, regional governments are allowed to implement policies and regulations related to the issue of food security.

Responding to food insecurities, there are several programs implemented by the National Government such as rice subsidy program (*Beras untuk Masyarakat Miskin*), cash transfer programs (*Bantuan Langsung Tunai*), and free health care (*Jaminan Kesehatan*).³¹ These programs are valuable to strengthen the food security condition in regions that are easily affected by any shocks especially since the beneficiaries of the programs are households. Through the cash transfer programs, households are able to survive especially during food deficits, which mostly happened during months after harvest season.³²

³¹ World Food Programme. “Nutrition Security and Food Security in Seven Districts in NTT Province, Indonesia: Status, Causes and Recommendations for Response”, 7. <http://home.wfp.org/stellent/groups/public/documents/ena/wfp236825.pdf>

³² Yoseph. Personal Interview. 2 July 2012.

Background: Timor Tengah Selatan

Timor Tengah Selatan regency is located on Timor island, which is one of the four islands that are part of East Nusa Tenggara.³³ Prior to Dutch colonization, the regency was a part of three political domains: *Kerajaan Mollo*, *Kerajaan Amanuban*, and *Kerajaan Amanatun*.³⁴ The regency consists of 32 subdistricts including 228 villages and 12 *kelurahan*, with a total population of 441,155 people.³⁵

Many ethnic groups are found on Timor Island. One group, called Dawan, constitutes the majority, residing in many regencies including Timor Tengah Selatan.³⁶ In *Paths of Origin, Gates of Life*, Andrew McWilliam notes various names in regards to the term *Dawan* including: Timorese, the term used by the Dutch; and Atoni Pah Meto, the formal term of “native land people.” The author himself used the term “Meto” which he says is “the most commonly used collective self-reference by the mountain Timorese themselves.”³⁷ The language spoken in this area is both Bahasa Indonesia and Bahasa Dawan. Other ethnic groups that immigrated to the island include “Chinese and people from the neighbouring islands of Sabu, Flores, Sumba and Rote.”³⁸ In addition, there are also people of Bajo, Buton, and Bugis.

³³ There are four islands in East Nusa Tenggara: Flores, Sumba, Timor and Alor.

³⁴ Timor Tengah Selatan Regency, “Sejarah”. Last updated June 22, 2011. http://ttskab.go.id/webtts2011/index.php?option=com_content&task=view&id=13&Itemid=30

³⁵ Statistics Indonesia. *Kabupaten Timor Tengah Selatan Dalam Angka 2012*, 40.

³⁶ Gregor Neonbasu. *Sejarah Pemerintahan Raja-raja Timor*, 52.

³⁷ McWilliam, Andrew. *Paths of Origin, Gates of Life: A study of place and precedence in southwest Timor*, 26.

³⁸ *Ibid.*, 27.

Similar to other places in Indonesia, Timor Tengah Selatan has two seasons, one dry and the other wet. The dry season goes from April to October, whereas the wet season goes from early November until March. The island of Timor is located close to Australia.

Development Gap

In “Development, Resources and Environment in Eastern Indonesia,” Budy P. Resosudarmo and Frank Jotso discuss the development gap between eastern Indonesia and other large islands in the country such as Java and Sumatra. As the most populous and advanced island, Java is usually the comparison point for any regions in the country. Two major differences exist between eastern Indonesia and Java. First, the eastern islands have lower population density. Second, the geographical conditions are more challenging, which contribute to inadequate access to transportation. These authors believe that this particular part of Indonesia needs “its own development path—one that takes local conditions, local economic and social structures and local patterns of resource use and interaction with the environment.”³⁹

The Indonesian government’s assessment of the poverty line is slightly lower compared to the World Bank’s poverty line. According to the country’s Central Statistic Agency, there are currently 28.6 million people who live under \$1 a day, representing 11.66% of the whole population in the country. The percentage of people who live under Indonesia’s poverty line in East Nusa Tenggara is 20.41% of the total one million population. In the urban population, the total percentage reaches 12.21%, whereas with

³⁹ Resosudarmo, Budy P., and Frank Jotso. *Working with Nature Against Poverty: Development, Resources and the Environment in Eastern Indonesia*, 4.

the rural population the number almost doubles with a total 22.41%.⁴⁰ Specifically in the Timor Tengah Selatan regency, the total (based on 2010 data) is 126,600, representing almost 29% of the total population. Compared to 2006, the percentage decreased by 11%. Despite the decrease in the number of poor people, questions arise as to whether the current poverty assessment variables are appropriate with the current standard of living.

Three Pillars of Food Security

I will discuss the food security condition of Timor Tengah Selatan by using the three pillars of food security: food availability, food access, and food use. In considering food availability, I include statistics that provide information on major crops in the region. In discussing the utilization of food, I will provide information on foods that are commonly consumed by the people in the regency, size of family, and frequency of consumption. In regard to food access, I will discuss the sources in retrieving food.

Food availability

According to World Food Program, the food availability in the province of East Nusa Tenggara is “adequate.” However, there is unequal food distribution affecting several regencies including Timor Tengah Selatan.⁴¹ In Timor Tengah Selatan, maize is the staple crop. The major crops produced in the area include maize, paddy, cassava, and sweet potato (see Table 1).

⁴⁰ Statistics Indonesia, “Poverty Line in September 2012,” Last accessed 22 April 2013.
http://www.bps.go.id/tab_sub/view.php?kat=1&tabel=1&daftar=1&id_subyek=23¬ab=1

⁴¹ World Food Programme. “East Nusa Tenggara Profile,” 2,
<http://www.wfp.org/sites/default/files/NTT%20factsheet%20Jan%202013.pdf>

	Crops	Land (Hectare)	Production (Ton)
1.	Maize	65,341	136,403
2.	Paddy	2,556	8,551
3.	Cassava	20,909	205,658
4	Sweet potato	2,990	24,463

Source: Statistic East Nusa Tenggara, 2011⁴²

Table 1. Area of land and total production of major crops in Timor Tengah Selatan

In Timor Tengah Selatan, people acquire food by producing their own food in their own field, exchanging or buying food from the nearest public market, and receiving rice from a subsidized government program. All respondents reported that they do not practice monocropping, but rather mixed cropping which includes maize, cabbage, bananas, root vegetables, and squash.

Food use

Previously mentioned in the last section, the main staple food is maize. Other staple foods include root vegetables and rice. Vegetables include Chinese cabbage, papaya leaves, cassava leaves, papaya flower, papaya leaves, squash, and green beans. Common side dishes include eggs, fish, chicken, beef, dog, and pork.

On average, each household consists of six people including children. Based on the calculations, each household consumes 12 corncobs or 2 kilos of rice per day in addition to their side dishes. People commonly eat food three times a day: breakfast, lunch and dinner. However, some people mention that they could have only two meals a day, especially in the months before the planting season starts when their food supply is low. Children have three meals a day. Before working in the field, a typical breakfast

⁴² Statistics East Nusa Tenggara. "Pertanian – Tanaman pangan," <http://ntt.bps.go.id/index.php/pertanian/tanaman-pangan>

includes root vegetables such as sweet potatoes and cassavas. After working, lunch and dinner include rice or corn with vegetables, eggs, and chicken. For protein, beef, fish, or other types of meats are rarely consumed daily, but are reserved for special events.

In the “Food Security” workshop held by ANIMASI, the topic of consumption of betel nut or *sirih pinang* was also raised. The facilitator of the workshop asked whether *sirih pinang* should be considered a “food” because it is consumed often every day. Chewing *sirih pinang* is part of Timor culture, as I discussed previously in the first chapter. It can be costly and most of the time the cost is overlooked. Since it is consumed daily, and an important part of their social interaction, it is reasonable to include the cost of consuming this.

Food access

The topic of food access includes how households can acquire food that is sufficient and healthy for all members which include income and employment. Access to land is an important factor because not only it assures households direct access to food but also how households can collect cash income. Yotan rented a 50-acre tract of land from a landowner in his village. He signed a two-year rental contract for Rp1.5 million (approximately US\$153).⁴³ Other respondents owned their land. The area of their farmland varies, starting from 20 acres to one hectare. All respondents are farmers. Both Libye and Novema are part of female enterprise groups who occasionally receive extra income from utilizing their baking and craft skills.

The people of Timor Tengah Selatan have access to three public markets that are located in the city of Soe, Nusa village, and Niki-niki. The market in Soe is open every

⁴³ Febianus. Personal Interview. 27 June 2012.

day, but the other two open once a week on Friday. Everyone can sell their produce or any products in the market by paying a retribution fee. Soe's public market is the largest of the three markets. Usually, people from other surrounding villages come to Soe to sell their products. Some will sell during certain days and others will come every day. Buyers from Kupang also attend the public market, and some days they go to Soe's market to buy their fruits and vegetables. All people in the 10 villages receive Raskin, a subsidized rice program from the government. This program is one of the coping strategies to address the food deficit, implemented by the government and distributed by regional governments. Each household receives subsidized rice in average amounts of 44 kilos quarterly.

CHAPTER IV

UME KBUBU

Physical Structure of *Ume K bubu*

Ume kbubu is a traditional Dawan structure that can be found in the backyard of every household in the Timor Tengah Selatan regency. *Ume kbubu* means “a round kitchen” in the *Bahasa Dawan* language. It is made out of rattan frames that are bent into a beehive shape and thatched with dried grass; the structure is usually 7 to 9 feet tall and 11 to 14 feet wide. The building has a small entrance, requiring people to bend down as they enter. Stepping inside the building, one can see ears of corn covered with browned husks hanging in the middle area nearby the firepit. In one side of the interior is a sleeping mat. Several woven baskets and cooking pots are hung on the wall. On the other side is a short ladder for passage to the attic where people can store maize, legumes, and seeds. A mother can be seen cooking with firewood inside the building, with the children playing in front of the building. The dried grass that covers the structure is thick enough to prevent rain from coming inside. The small door and absence of windows ensures that the warmth from the fire stays inside. In the wet season, *ume kbubu* provides a shelter that is warm, especially from the cold winds blowing from northern Australia.

The materials of *ume kbubu* are all forest materials. Woods typically used are from white eucalyptus, commonly called *kayu hutan*. The construction can take 2 to 3 weeks. Libye’s family’s *ume kbubu* was constructed approximately 10 years ago, and the foundation is still the same. The roof material, dried grass, is typically replaced more frequently compared to the wall and foundation of the building. “The wall lasts for a

very long time. The roof can last for 7 to 10 years.”⁴⁴ Based on the physical structure of this traditional building, the small entrance is noticeable and symbolizes the value of the building itself to the people. Whoever enters *ume kbubu* must stoop to pass through the entrance. The small entrance becomes a reminder for the people to respect the crops that are kept inside.⁴⁵ Stooping at the point of entry symbolizes the action of bowing to the foods that are stored in the attic and also to the corn hung on top of the fire pit. This gesture symbolizes the people’s reliance on food.

Ume kbubu and Lopo: Bahasa Dawan and Bahasa Indonesia

Ume kbubu is frequently referred to as *rumah bulat*, which literally means a “round house” in Bahasa Indonesia. All respondents in the interviews mostly refer to *ume kbubu* using two terms: *rumah bulat* and *lumbung*. Occasionally, the word *dapur* is also used.⁴⁶ *Dapur* means kitchen in Bahasa Indonesia. *Lumbung*⁴⁷ means granary. In my first weeks working with ANIMASI, I had the understanding that when people mentioned *lumbung*, they were specifically talking about *ume kbubu*. Then, I realized that *lumbung* is used when speaking of both *ume kbubu* and *lopo*. The difference between *ume kbubu* and *lopo* can be clearly seen by looking at both physical structures: the former has a roof with sides that touch the ground, whereas the latter does not (see Figure 2). Despite the fact that both are used for food storage, both buildings also have different functions. *Lopo*

⁴⁴ Libye. Personal interview. 28 June 2012.

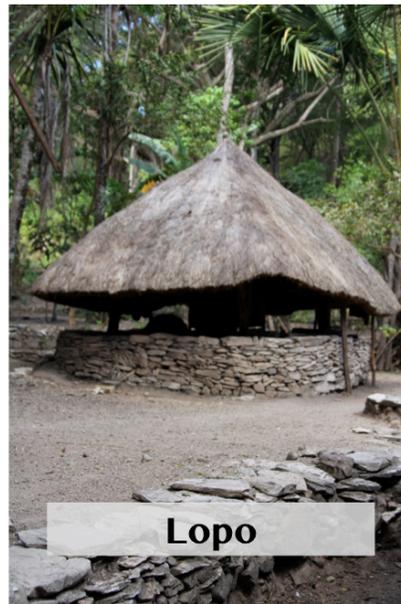
⁴⁵ Yoseph. Personal Interview. 2 July 2012.

⁴⁶ Libye occasionally refers *ume kbubu* as *dapur*, or kitchen.

⁴⁷ According to *Kamus Besar Bahasa Indonesia* Fourth Edition, *lumbung* means “a place to store crops (commonly rice paddy) with the shape of a high-footed house with walls made out of weaved bamboo.”



Ume kebubu



Lopo

Figure 2 *Ume kbubu* and *Lopo* at Boti Village

is used as a place that functions as a living room. When someone pays a visit, the father or the husband in a household will greet his guest at the family's *lopo*.

To understand the traditional and actual practices of *ume kbubu*, as suggested by my colleagues at ANIMASI, I made acquaintance with Yeremilo, a *Usif* who is a well respected elder in the the area of Amanuban. When I met the *Usif*, he greeted me cheerfully. Before I started the interview, I took out the *okomama* and asked his permission if he was willing to tell the stories of his own people and culture. As I moved the small basket towards him, he smiled and said, "You've become like Timor people!" Reaching for one betel nut, Yeremilo implied his approval for contributing to this study. His friend started to pass around a tube used to keep slaked lime. We started to chew, and we talked. He talked about *ume kbubu*, solemnly assuring that he is not withholding anything he knows, nor would he give me a wrong answer. He recalled that *ume kbubu*

has been part of Timorese culture for many generations.⁴⁸ He spoke about two buildings that are commonly found in every household in Timor Tengah Selatan regency which are *lopo* and *ume kbubu*. “Dulu itu pasti satu keluarga, ada satu *ume kbubu* dan satu *lopo*.” “In the past, a household definitely has one *ume kbubu* and one *lopo*.”⁴⁹ Since *ume kbubu* is a space that is mostly used for the family itself, *lopo* can be considered as a space for people outside of the household. It serves as an outdoor living room.

According to Yeremilo, over the last two generations the use of *lopo* has been declining, but this has not happened to *ume kbubu*. Every time I passed a residence area near villages around Soe, I noticed that not all households have *lopo*. I assumed that *lopo* is a covered open space where people can sit. In one hamlet I could see a mix of *ume kbubu*, semipermanent houses, and permanent houses. Building semipermanent houses and permanent houses allows people to have larger spaces and to divide their own house into separate rooms (for example: living room, bedroom) based on the functions suitable for their family. It certainly would be challenging to have both aspects considered with *ume kbubu*. As a matter of fact, all my interviews were conducted in a living room space inside of both semipermanent houses and permanent houses, except for the interview with the *Usif*, which took place out at the back part of his house near his family’s *ume kbubu*. Not all of my interviewees have *lopo*, but they do have a space designated to receive guests.

Spending time in five villages in Timor Tengah Selatan I observed that households who have *ume kbubu* do not necessarily have the same physical structure. There are a couple variations of the structure of *ume kbubu* in Timor Tengah Selatan. All

⁴⁸ Yeremilo. Personal interview. 1 July 2012.

⁴⁹ Ibid.

five respondents except Yeremilo, the Usif, and Libye do not have the original structure of *ume kbubu*. Both the households of Novema and Febianus have a similar structure which is a roof that does not touch the ground and walls made out of wood and bamboo. The *ume kbubu* that belongs to Febianus has a hinged door, which is different from the original *ume kbubu* that does not have a door.

Rupertus, who has been leader of a farmers group in Nusa village for more than 29 years, states, “I am a native. Since a long time ago *rumah bulat* has existed.”⁵⁰ In the past, he remembers his *ume kbubu* was made out of grass. Then, he built a semipermanent house where half of the house was a cemented wall with a corrugated iron rooftop. He says, “I changed [from] a grass house ten years ago.”⁵¹ Currently, he lives in a house that has a permanent structure built with bricks and clay roof. He owns two storage buildings to keep both crops and seed. The first storage building, directly connected to his home, is built to keep rice, while the other storage is separately located near his house. The wall is made of wooden boards with a corrugated iron rooftop. Rupertus intended to use corrugated iron roof for convenience. The material is easy to replace. However, despite the convenience, he still prefers to have *ume kbubu* with grass material because it protects the crops better.⁵² “When I used corrugated iron, the smoke escaped the building.” To prevent moisture from dew entering the building and damaging the crops, he placed a layer of used cement packaging below the corrugated iron rooftop

⁵⁰ Rupertus. Personal interview. 5 July 2012.

⁵¹ Ibid.

⁵² Ibid.

to protect the crops.⁵³ When I entered the food storage, which is a part of his house, I saw approximately 20 large sacks of rice placed on the floor. With that large amount of rice, it was impossible to store all of the bags in an *ume kbubu* especially in the attic. Other crops such as corn and legumes were stored in the other storage building.

Libye originally came from a village approximately 7 km from the capital city of East Nusa Tenggara. Her family does not own an *ume kbubu*. Despite the absence of the actual structure, she states that her family still stores food and seeds up in the attic of their home. Her family also smoked the corns. She says,

Their lives are more advance than ours. Their granaries are different. In here, we have *rumah bulat*. They have a kitchen similar to ours, but they store their corn and other crops up in their attic. They can take their food anytime. There are no rules. They still have an attic. They store seeds for next season, which they will not eat before the planting season. They also smoked their corn.⁵⁴

Practices of *Ume Kibubu*

Before I discuss the practices of *ume kbubu*, it is important to understand the relevance of granaries from other perspectives. Various traditional food storage buildings have existed not only in Indonesia but also in other countries such as Spain, Mali, and China. Despite their similarities in their functions as food storage, these buildings are typically different in the physical structure including materials, shapes, and sizes. Some granaries are built for the government's food storage. There are also granaries built by other institutions such as charity organizations and local communities. Each food storage building has its own unique management procedures.

During the interviews, I asked all respondents about the tradition of managing the *ume kbubu*. I started by asking if respondents remember having *ume kbubu* during their

⁵³ Rupertus. Personal interview. 5 July 2012.

⁵⁴ Libye. Personal interview. 28 June 2012.

childhood. All of them answered yes. I was curious as to whether the management of *ume kbubu* differs now from the time of their childhood, so I asked how their family used *ume kbubu*. Later on I asked about their current practices. Based on their responses, the management of *ume kbubu* today differs from their childhood time. They responded by saying that there are “rules” and “beliefs” related to the *ume kbubu*. Perhaps because of the oral tradition, some people have different opinions in regards to the expected rules and beliefs. Surprisingly, their current management varies despite the “rules” and “beliefs” that they followed and experienced during their childhood. Both women respondents moved to their husbands’ villages because of marriages, and both differ in their current practices.

Food storage and seed saving

All my respondents who have *ume kbubu* say that they store crops such as beans, sorghum, and corn in the attic that will be used for seeds for the next planting season and food for their own consumption. Postharvest activities include cleaning and sorting the crops. The crops will be placed in the attic based on their durability.⁵⁵ Some of the corn is hung on top of the fire pit. Since cooking takes place inside the building, the fire pit is always lit up. The smoke that comes from the fire pit preserves the crops and seeds that are kept inside the building. Since the place is fully covered, the smoke cannot escape the building. It keeps the place dry and captures the moisture, allowing the seeds and crops to dry. The smoke repels insects and pests, ensuring that seeds and crops last longer. The

⁵⁵ Matheus Krivo. *Mulai dari apa yang dimiliki warga: upaya ketahanan dan pengamanan pangan. Pembelajaran bersama ANIMASI*. 5.

corn husks are brown-colored and dried because of the smoke (see Figure 3). Smoking crops is a method that is used to prevent crop damages from insects and humidity.^{56, 57}



Figure 3. Corncobs hung on a *ume kbubu*

For many farmers in Timor Tengah Selatan, corn is considered to be the main crop. The planting season starts in November, and the harvest season starts in March. After harvest, the corn is cleaned and sorted by size.⁵⁸ The corn is sorted for daily consumption, for seed saving, and for selling. For Yeremilo, during this process he keeps the corn inside his home until everything is cleaned and sorted. The larger corncobs are tied together and placed up in the attic, while the smaller corncobs are kept inside sacks for daily consumption. “*Setelah kecil habis dimakan, baru lanjut makan yang besar.*”

⁵⁶ International Food Policy Research Institute, “Aflatoxins in Mali,” August 2010, Last accessed May 5, 2013. 2013, <http://www.ifpri.org/sites/default/files/publications/aflacontrolpn02.pdf>.

⁵⁷ Other methods are used to prevent insects damaging the crops. In Cameroon, aromatic plants are placed inside granaries and used as insect repellent. Ngamo et al., “Current Post Harvest Practices to Avoid Insect Attacks on Stored grains in Northern Cameroon,” *Agricultural Journal* 2(2), 246, accessed 5 May 2013, <http://www.gembloux.ulg.ac.be/entomologie-fonctionnelle-et-evolutive/wp-content/uploads/2012/07/1678.pdf>

⁵⁸ Yeremilo, Libye. Personal interview.

“After the smaller ones are eaten, we continue to eat the larger corncobs.”⁵⁹ This sorting process is also followed by other farmers.

According to Yeremilo, he and his relatives often work together during planting and harvesting season. During the cleaning and sorting stages, he “invites his relatives to join him tying the corncobs together.”⁶⁰ During the sorting process, they also select several larger corncobs for seed. After the sorting process is completed, the seeds are placed in the back side further away from the stairs. The cobs that are going to be eaten by the family are stored near the stairs.

Similar to Yeremilo, Libye also works together with her relatives in sorting out the corn. She says, “When we harvest all the corn, we will count the yield. If we have plenty, we will sell some of the corncobs. The rest will be kept for us.”⁶¹ Before the corncobs are taken to the attic, they will decide the amount of corn for their own food and for seed. During this process, everyone will work together. However, when everything is sorted out, Libye would help carrying the corn only until the middle steps of the *ume kbubu*’s stairs. She continues her story, “If there are many corncobs hung under the fire pit, that means there are plenty of corncobs up in the attic. For us, that means we have food until the next planting season, or even until the next harvest season.”⁶²

In selecting the seeds for the next planting season, Novema shares what her family does starting from the planting season, which is commonly done by other families too:

⁵⁹ Yeremilo. Personal interview. 1 July 2012.

⁶⁰ Ibid.

⁶¹ Libye. Personal interview. 28 June 2012.

⁶² Ibid.

Starting from the rainy season, we pray with the church elder and take the dried cobs from the attic. The corns that we prepared and kept up at the attic are brought down.... We break off the kernels. We take the seeds from the middle part of the corncobs. We carefully select the seeds that are not damaged which are the clean kernels.... Then, we keep the kernels from the top and end part separately.⁶³

This seed saving practice is crucial to the lives of the farmers. The sorting process allows every household to decide the amount of corncobs allocated for specific use: which are for seeds, which are for the household's consumption, and if possible, which are for selling. Several months before planting season, a household may not have enough food to survive. When a family does not have enough corn supply for daily consumption, they will not eat the corns allocated for the next planting season. Most farmers use both local and hybrid corn seeds.⁶⁴ When farmers do not have enough local corn seeds for the next planting season, hybrid corn seeds are purchased despite the high price.

When I asked about the origins of the rules, all participants somewhat agreed that when the rules are ignored, there will be consequences. Libye believes that if she disobeys, her disobedience will bring misfortunes.⁶⁵ "If we disobey, we won't have enough food ... even if the harvested crops are plenty."⁶⁶ All participants said that the older generations who had *ume kbubu* managed to have enough food even though the amount of crops were small.

⁶³ Novema. Personal interview. 5 Juli 2012.

⁶⁴ Based on "Food Security" workshop by ANIMASI.

⁶⁵ Libye. Personal interview. 28 June 2012.

⁶⁶ Ibid.

Natura: Allocation of crops for church and older relatives

In the past, after harvesting the crops, farmers allocated a few of their crops to their kings and to the church, a practice which is called *natura*. When I asked Yeremilo about *natura*, he states, "Natura happened in the past. We no longer practice it. In the past, we do not have what we called church. During that time, we cut several young corn stalks and placed them on a large rock or large log. Then, we worshiped it because the name is god both above and below. Now, we give one bundle to church."⁶⁷ He also said that some of his crops were given to his parents. "When the corncobs are dried, I would give them to my parents. So, when we harvest our crops, we store them inside our *ume kbubu*. Then we would give some of our crops to god, father-mother, and the second god."⁶⁸

Specific Roles Related to the Practices *Ume K bubu*

Attending both informal and formal events in Timor Tengah Selatan Regency, I observed implicit expectations related to gender. During the process of *lopo* or farmers groups' *lumbung* construction, the male members participated in building it. They gathered and brought the materials to the building site and took measurements. When I arrived, I saw that the women were preparing food in front of Febianus's *ume kbubu*, while the bigger children watched the younger children. Three female elders were sitting in a small *lopo* nearby the *ume kbubu*. As I observed the construction, I stood closer to the building site and asked the male members questions about the materials and the construction process. Two hours later, two women came near to us and started to set up a

⁶⁷ Yeremilo. Personal interview. 1 July 2012.

⁶⁸ Ibid.

small table to place snacks. They started to call the leader of the group to remind him that the crew should take a break. The women walked towards Febianus's *ume kbubu* and joined other women to cook and prepare food for lunch time.

There are implicit roles in farmers groups' for both men and women. Adult men are expected to help with the construction, whereas adult women are expected to prepare food and perform other housekeeping tasks. Based on similar personal observations, I saw that there are also implicit gender roles attached to the practice of *ume kbubu*. Rupertus differentiated how men and women have different roles, particularly in storing food. "*Bapak yang sorong tapi mamak yang atur.*" "The husband carries the crop but the wife arranges the crop."⁶⁹ Men will hand over the crops to women and the women will arrange the crops up in the attic.

Establishment of a new family: Men

Before a man marries, he has to build *ume kbubu*. He also needs to provide food and land for his new family. Otherwise, the wedding cannot proceed. Yeremilo, the *Usif*, says, "If a man from this village marries, the future husband must have *rumah bulat*. In Timor's tradition, if there is no *rumah bulat*, then there is no marriage. Food must also be inside it. Absence of food and *rumah bulat* means the couple cannot be married. He must have *rumah bulat*; he must have field, banana, and cassava. These are necessary."⁷⁰ Yeremilo points out the importance of a man having *rumah bulat* and food. The rules acknowledge that both shelter and food are essential to the well-being of people.

⁶⁹ Rupertus. Personal interview. 5 July 2012.

⁷⁰ Yeremilo. Personal interview. 1 July 2012.

However, for the case of Febianus, he did not build a brand new *ume kbubu* right after he got married. When first married, Febianus and his wife lived with his mother. Five years later, he decided to move out from his mother's house and to build a new home and *ume kbubu* for his own family. He mentioned how it would be easier for his wife to care for his family without being a burden to his mother.⁷¹

Before marriage, men are expected to build *ume kbubu*. During their childhood, they lived in their family's *ume kbubu* which was built by their father. Now that a man is going to marry, he is expected to build his own *ume kbubu*. This is a new responsibility that symbolizes his readiness to build a new family, assuring his own family and his future wife's family that he will provide for his wife and his future children.

Access to the attic: Women and children

In the previous section I explained that men must provide and build *ume kbubu* for their family. Even though he builds his family's granary, only women can access the attic, the top part of the *ume kbubu*. This rule relates to the marriage customs in Timor Tengah Selatan. Like many other ethnic groups in Indonesia, most people will have two wedding ceremonies, a religious ceremony and *adat* (traditional) ceremony.

In Timor Tengah Selatan, a Protestant majority area, most religious ceremonies take place in church and the *adat* ceremony takes place in the husband's village. The *adat* ceremony includes a ritual of *turun marga* and *naik marga*. *Turun* literally means down. *Marga* means family name, and *naik* means up. This means the bride "takes down" her family name and changes to her husband's family name. When a bride *naik marga*, she is allowed to go up to the attic to get food for her family. Having both wedding ceremonies

⁷¹ Febianus. Personal interview. 27 June 2012.

can be costly. Not all households go through *adat* ceremony. *Belis* or “bride price” in East Nusa Tenggara, is widely known to be extravagant and expensive. It is not unusual to find households where the men still owe the bride price to their wives’ families. Until the bride price has been fully paid, only the husbands can go up to the attic to get food and seeds.

Some respondents have a different view on who has access to the attic. According to Yeremilo, wives who had *naik marga* and the children can go up. “*Anak bisa naik karena punya bapak fam,*”⁷² meaning, the children can go up to the attic because they took after their father’s last name. He also said “*tanpa marga berarti tidak bisa naik ke lumbung,*” “without her husband’s family name, the wife cannot go up to the *lumbung*.”⁷³ If she is going to leave the house for a short time, she needs to estimate how much food will be enough to feed her family, and she must bring the food down from the attic prior to her departure. When she is gone, no one can go to the attic even if her family needs more food. If this situation happens, her family needs to find food from other households, preferably from close relatives.

In Libye’s case, Libye lives next to her mother-in-law. Before she was married, she used to live in a village near the capital city of East Nusa Tenggara. She shares *ume kbubu* with her mother-in-law since she moved to her husband’s village. Her *belis* has not been paid, which means she is not allowed to go up to the attic. “Not everyone can go up to the attic. Only my mother-in law can go up. If the *belis* is not paid, I cannot enter the

⁷² Yeremilo. Personal interview. 1 July 2012.

⁷³ Ibid.

attic.”⁷⁴ During the interview, Libye said that her mother-in-law was out of town. She explained that her mother-in-law had moved some food from the attic to the kitchen below. “Whether there is food or not for our family, the food stored in the attic cannot be eaten.”⁷⁵ Libye and her family need to wait until her mother-in-law returns.

In Novema’s case, her routine is different compared to Libye. Novema, a 40 year-old woman, is currently the leader of a female farmers group in Naukae village. Her group was one of the three farmers groups that officiated in the beginning of my internship. I have always enjoyed working together with her as she has enthusiasm to make progress in her own group. During my interview with her, I found out that she has not completed her *naik marga* ritual. Despite the rules and beliefs in her community, she goes up to the attic to retrieve food for her family. Learning that Libye came from another village, I curiously asked where Novema grew up, especially because it is common for Dawan women to leave their own village and follow their husband. She was born in Village C and previously lived in her family’s *ume kbubu*. She recalled that her parents “*ikut peraturan*,” “followed the rules.” “For a long time, they have followed the rules. Even though the harvest amount is small, it is sufficient for months.”⁷⁶ She implied that there is a connection between following the rules and sufficiency of crops.

Novema moved to Village B after she married her husband. When she moved to Naukae, she said that there was no *ume kbubu* for her own family but her in-laws did have *ume kbubu*. Responding to my question about who goes up to the attic to retrieve food, she noted that “in our own home, I am in charge of taking the food, but this violates

⁷⁴Libye. Personal interview. 28 June 2012

⁷⁵ Ibid.

⁷⁶ Novema. Personal interview. 5 July 2012.

the rules. If I have completed the *naik marga* ritual, I could go up to the attic. But I have not, which means, I am not allowed to, but I still go up to the attic.”⁷⁷ Novema is aware of the rules of using *ume kbubu*. Based on our previous conversations, she even knew the consequences that her community believes in with regard to violating the rules. I continued the conversation by asking whether her husband climbs up to the attic. She responded, “If I’m not at home, yes, my husband will go up.”⁷⁸

Women as the manager

Ume kbubu is closely linked to women. *Ume kbubu* is associated with “female” where as *lopo* is associated with “male.” Febianus stated that “*ume kbubu* belongs to women because they cook.”⁷⁹ He specifically indicated the connection between *ume kbubu* and women. Most of the time, *ume kbubu* are used by women.⁸⁰ Based on the things that happen inside *ume kbubu*, it is fair to say that women utilize it more than men. First, women prepare food inside or nearby the building. Second, they give birth to their children inside the building. Third, for women who had *naik marga*, they are allowed to go up into the attic to retrieve food. By having access to the food storage, these women have an actual idea of the amount of food their families have. They may be better managers in feeding their families. They can also ration out the food based on food availability, and can decide how to meet the needs of their family.

Libye believes that “women are more capable in managing” food especially in rationing out food for their own family. “Women know better. Women are more capable.

⁷⁷ Novema. Personal interview. 5 July 2012.

⁷⁸ Ibid.

⁷⁹ Yeremilo. Personal interview. 1 July 2012.

⁸⁰ Author. Personal observation.

People here believe that men are improvident.”⁸¹ In regards to the rule of *ume kbubu*, Libye implies that it is reasonable to have only women taking food from the attic because when men take part of it, their family will not have enough food.⁸²

A symbol of family and community

In Timor Tengah Selatan, family members live close to each other. In some cases, the members of the extended family could live together in the same house. Rupertus, approximately 60 years old, lives with his wife and two of his grandchildren. His children live nearby and work together with him. Rupertus has been the leader of a large farmers group since 1983.⁸³ His children are also members of the farmers group. Febianus and his wife moved out from his mother’s house five years after their marriage. However, he still lives close to his brothers and mother. Febianus is also part of a farmers group which is currently led by his older brother. Libye also lives next to her mother-in-law. The tight-knit community affects how each household manages its own food.

Integration of farmers groups and lumbung

All interview respondents are members of farmers groups. Both Novema and Rupertus are leaders of their own farmers groups. As part of the ANIMASI *Lumbung Kampung* project, each farmers group is encouraged to use the idea of *ume kbubu*. When I was conducting my research, there were three farmers’ groups that completed the construction of their *lumbung* in the form of *lopo*. The *lopo* is considered more suitable

⁸¹ Libye. Personal interview. 28 June 2012.

⁸² Libye. Personal interview. 28 June 2012.

⁸³ Rupertus. Personal interview. 5 July 2012.

for their own groups because with *lopo*'s building structure, the groups can hold meetings in their own *lambung*.

CHAPTER V

UME KBUBU AND DEVELOPMENT POLICIES

In the previous chapters, we have learned about the food system of Timor Tengah Selatan and the practices of *ume kbubu*. Despite the history and rules of *ume kbubu*, the people of Timor Tengah Selatan differ in their actual practices. Some continue using *ume kbubu* within the same tradition of their childhood, whereas others modify the physical structure of the tradition based on their needs. Still others no longer have *ume kbubu* but nonetheless adopt food and seed management practices.

Through ANIMASI's project, farmers groups from the ten villages express interest in expanding in the household granaries into a community granary. During my internship time three farmer groups finished construction of their community granaries. All granaries were constructed in the form of *lopo*. By building *lopo*, the building can provide not only community food storage but also a meeting place for these farmers groups. The *lopo* is bigger than the usual *lopo* that would serve one household because it is designed to accommodate at least 20 people, which is usually the total number of members of a farmers group. The expansion of the usual household granary into a community granary displays a continuum of practice of *ume kbubu*. The expansion of household granary into a community granary is an effort that needs to be recognized and supported. One way to support expansion of this idea is through policies. In this chapter, I will discuss how policies concerning community food storage implemented at different levels can contribute to the success of this continuum by examining three levels: village, regional or provincial, and national.

Village Level: Village Regulations

As part of ANIMASI's program, village officials were given technical training such as workshops related to their village development. One of the workshops was called "Legal Draft Exercise."⁸⁴ A law firm from Bali came to assist the village officials in drafting their regulations. At the village level, there are two types of regulations: Village Regulations and Village Head Regulation. The former consists of regulations established by both Village Head and Village Consultative, whereas the latter consists of regulations established by Village Head.

In the first two days, the village officials were asked to identify problems that occurred in their own villages. At the end of the workshop, several villages had written several drafts of village regulations. Some included the issue of food security and *lumbung kampung*. They also drafted regulations about agricultural practices, including building fences to lessen crops damaged by livestock.⁸⁵ Village A identified the need for *lumbung kampung*. The officials of Village A included this expansion idea in the draft of Village Regulation in Food Security.

What I found intriguing is that all Village A officials are members of farmers groups. I attended their meetings several times, and discovered that the meetings would start late or end early because at least one or two officials would have other obligations with their own farmers group. Having several members of farmers groups elected as village officials supports the development of the farmers groups. By establishing

⁸⁴ Held by ANIMASI from 29 May – 1 June, 2012.

⁸⁵ Yayasan Aksi Kemanusiaan, "Meeting Notes of Legal Draft Exercise," 2.

regulations concerning *lumbung kampung*, the officials encouraged the farmers groups to build community granaries in the form of *lopo*.

Looking at the continuum of the practices of *ume kbubu* from the village level perspective raises questions as to whether the village regulations will affect the impact community granaries positively or negatively.

Provincial Level: Anggur Merah

Based on the East Nusa Tenggara Medium Term Development Plan 2009-2013, the regional government identified four economic development goals that it wants to achieve: “to build East Nusa Tenggara as the top corn-producing province; to build East Nusa Tenggara as the national’s livestock storehouse; to return the successful sandalwood industry to East Nusa Tenggara; and to create East Nusa Tenggara as a cooperative province.”⁸⁶ Governor Frans Lebu Raya launched a development program called *ANGGUR MERAH, Anggaran untuk Rakyat Menuju Sejahtera*.⁸⁷ The government allocated 22 billion rupiah (approximately 2.2 million USD) to support food security projects in 298 villages. Initiated in 2010, this program provides loans up to 250 million rupiah (approximately 25,750 USD⁸⁸) for one village in every subdistrict in the area of East Nusa Tenggara.⁸⁹ To be considered for a loan, a recognized *kelompok usaha*⁹⁰ or enterprise group is required to submit a proposal to the head of the village. Then, the head

⁸⁶ Nusa Tenggara Timur Government. *Peraturan Gubernur Nusa Tenggara Timur Nomor 33 Tahun 2010*. [Governor’s Regulations 33/2010], 11.

⁸⁷ English translation: Budget for People towards Prosperity.

⁸⁸ Based on Indonesian Rupiah (IDR) and United States Dollar (USD) exchange rate 13 May 2013.

⁸⁹ Nusa Tenggara Timur Government. *Peraturan Gubernur Nusa Tenggara Timur Nomor 33 Tahun 2010*. [Governor’s Regulations 33/2010], 12.

⁹⁰ *Kelompok usaha* or enterprise group is a small group that focuses on a particular industry such as farming, fishing, crafts, and culinary. Members of a group usually reside in the same hamlet or village.

of the village will forward the proposal to the Governor for further review.⁹¹ Once a proposal is accepted, the group must provide a report to the head of village every month⁹².

When I attended the construction of the farmers groups' granary in village A, I met with one of the facilitator of ANGGUR MERAH who lives at another hamlet. The facilitator was invited by the group to observe the construction process and to celebrate afterwards. I asked her involvement with the farmers group. Apparently, Village A was chosen by the Governor to receive the loan. In 2011, Village A was also awarded a new public market because of success of farmers groups in the village. Governor Frans Lebu, who recently got reelected for the second term, is one of the pioneers for "eat local, buy local" campaign. He even encourage official events to serve local food including corn. He won an award from President Susilo Bambang Yudhoyono for his achievement in implementing food security projects in East Nusa Tenggara.⁹³ With his active involvement with farmers groups, he could see the success and challenges that farmers groups face.

National Level: Rumah Pangan Lestari

Indonesia's Law 7/1996 on Food includes the issue of food security and other key issues relating to food.⁹⁴ The House of Representatives revised the law to address the country's current condition, which resulted in Law 18/2012 which consist of various

⁹¹ Nusa Tenggara Timur Government. *Peraturan Gubernur Nusa Tenggara Timur Nomor 5 Tahun 2011* [Governor's Regulations 5/2011], 6.

⁹² Ibid, 6.

⁹³ *Presiden SBY Serahkan Penghargaan Ketahanan Pangan Nasional 2010*. <http://www.presidentri.go.id/index.php/fokus/2010/12/03/6200.html>

⁹⁴ Indonesia. *Undang-undang Nomor 7 Tahun 1996* [Law 7/1996].

description, development planning, responsibilities of involved actors, food pricing and stability, export and import, food diversification, and other critical issues related to food. Several NGOs such as *Wahana Lingkungan Hidup Indonesia*, or Friends of the Earth Indonesia, expressed concern that the revision law has not yet lived up to its expectations. Bustanul Arifin, a senior economist of INDEF,⁹⁵ states that the people are hoping the revision can provide solutions to both current and future food challenges.⁹⁶ The revision should also provide food legislation and regulation not only at the national level but also at regional levels because of the different kinds of crops in various regions. Law 18/2002 states that “Law No. 7 of 1996 on Food is no longer relevant to the dynamics of the external and internal conditions, democratization, decentralization, globalization, law enforcement...”⁹⁷

To enhance the condition of food security nationwide, the Ministry of Agriculture established a program called Rumah *Pangan Lestari* (RPL) or Sustainable Food House. According to the official guide, RPL is “a residential home that wisely utilizes its yard with a variety of local resources to ensure the continuity of providing food that has quality and variety for the household.”⁹⁸ The program is not only targeted to individual households but also expands to the larger scale such as hamlets and villages. The basic principles of this program include:

- (i) Utilization of a yard that is environmentally friendly and designed for food

⁹⁵ Indonesian Development of Economics and Finance, an NGO founded in Jakarta.

⁹⁶ Bustanul Arifin, “Berharap Banyak pada Revisi Undang-Undang Pangan,” February 7, 2011, accessed January 5, 2012. <http://metrotvnews.com/read/analisdetail/2011/02/07/136/Berharap-Banyak-pada-Revisi-Undang-Undang-Pangan>.

⁹⁷ Indonesia, Law 18/2012, 1.

⁹⁸ Ministry of Agriculture. *Pengembangan Kawasan Rumah Pangan Lestari*. Januari 2012, 1.

security and food self-sufficiency, (ii) food diversification based on local resources, (iii) conservation of the genetics of food sources (crops, livestock, fish) and, (iv) protection through a seed-saving village yard in order to (v) increase income and welfare of the community.

The revised Food Law covers national food reserves issue. The law includes three types of national food reserves which are central food reserve, regional food reserves, and communities' food reserves. National food reserve is constructed to anticipate “insufficient food availability, overflowing food availability, food prices fluctuation, and emergency situations.”⁹⁹ In this particular law, the regional governments are expected to build, manage and distribute their own food reserves. The rights and opportunities of Indonesian people to be part of communities' food reserves development are acknowledged. The governments are asked to facilitate the food reserves development based on the local traditions and resources.

The analysis of regulations and policies at the village, provincial, and national levels provides an understanding of how external factors influence the usage of *ume kbubu*. At the village level, the officials support the idea of building farmers groups' granaries to support the food security of their villages. At the provincial level, the recent food security program implemented by the regional government is a grant-driven program allowing enterprises such as farmers groups to write proposals to receive loans for their group activities. At the national level, the central government has a food security program that supports food productivity in every household. All regulations and policies are meant to strengthen food security at every level. However, local practices such as *ume kbubu* are not included in these policies.

⁹⁹ Indonesia, *Law 18/2012*, 15

CHAPTER VI

CONCLUSION

This paper looks at the practices of *ume kbubu* in Timor Tengah Selatan regency by analyzing how households use, fill, and maintain their granaries. The discussion of *ume kbubu* included two other buildings, the family's *lopo* and farmers groups' *lopo*. In the past, households would have two dwelling buildings: *ume kbubu* and *lopo*, the “living room.” Despite the decrease in *lopo* and the increase in semipermanent and permanent houses, households still use *ume kbubu* as part of daily life. Many households utilize *ume kbubu* not only for food and seed storage but also for other purposes such as childbirth, food preparation, and—still for many households—a place to live. Large scale actors like farmers groups are seeking ways to modify the use of *ume kbubu* by building a *lopo*, bigger than a family's *lopo*, to store food collectively and to have a meeting space for their members. The household and farmers groups buildings can be analyzed according to five categories: number of users, gendered spaces, how the building is incorporated into the daily lives of the people, how useful the building is for large-scale actors, and the usefulness for food security in Timor Tengah Selatan (see Figure 4).

The first category is total of users. In Timor Tengah Selatan, one household may have both *ume kbubu* and *lopo*. As discussed before, these buildings have different purposes. *Ume kbubu* is utilized to store food and save seed. The building itself is also used for other purposes such as food preparation and food preservation. Because the food preparation takes place inside the building, the smoke that comes from the fire pit decreases the chance of crop damages.

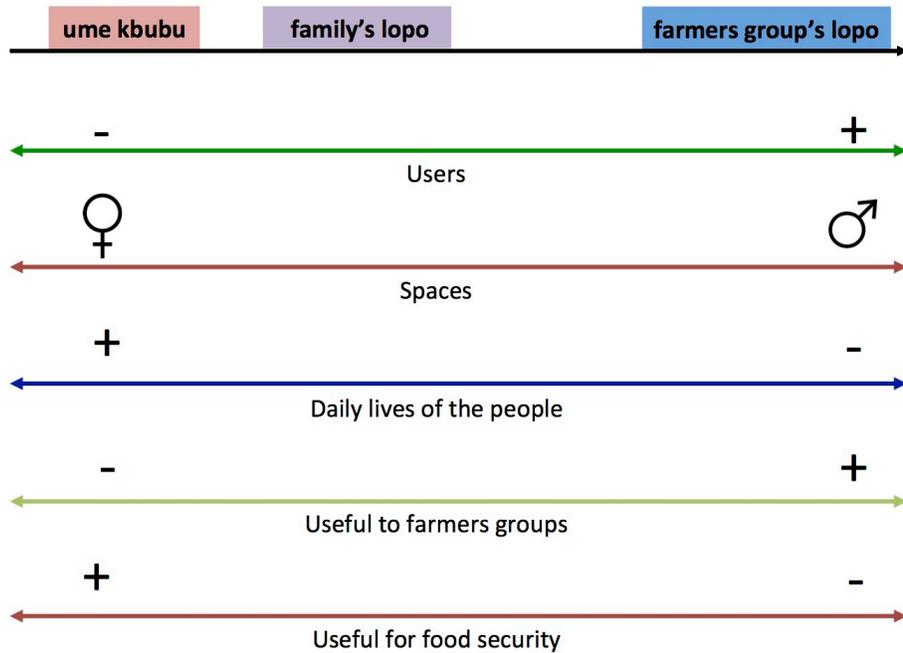


Figure 4. Scales of five categories in analyzing *ume kbubu*, family's *lopo* and farmers groups' *lopo*.

The constant warmth from the fire pit creates a comfortable place for elders and even a recovery place for mothers at childbirth. To create more space and rooms with various functions, more households in Timor Tengah Selatan are building semipermanent and permanent houses. The use of the family's *lopo* as a living room is declining. Both *ume kbubu* and the family's *lopo* have fewer users compared to the farmers groups' *lopo*. Farmers groups' *lopo* is used by the members of the groups. By the end of my research three farmers groups' *lopo* had been built. Farmers groups average approximately 20 to 25 members per group, meaning each farmers groups' *lopo* provides access to 20 to 25 households.

The second category is spaces related to gender. Both *ume kbubu* and the family's *lopo* are used by one household, whereas farmers groups' *lopo* is used by members of the group. In terms of gendered spaces, *ume kbubu* is more female gendered compared to both the family's and farmers groups' *lopo*. Within households, women use *ume kbubu* more than men. The family's *lopo* is used mainly by men. The three farmers groups who built their *lopo* are male farmers groups.

The third category looks at how each building is incorporated into the daily lives of the people. Compared to farmers groups' *lopo*, *ume kbubu* is more integrated to the daily lives of the people in Timor Tengah Selatan. Each day the mothers prepare food for their families inside their *ume kbubu*, whereas farmers groups' *lopo* are intentionally designed as a meeting space for their members and a place to store food.

The fourth category looks at the usefulness of each building to large-scale actors which are the farmers groups and government. Farmers groups usually meet every two weeks, or every week, depending on the needs of each group. In a meeting, the leader of a farmers group opens the meeting by stating the agenda of the meeting. Then, both the secretary and the bookkeeper give their reports on administrative and budgeting matters. Members are allowed to ask questions and to share their opinions with the group. The farmers groups' *lopo* is intended to provide a bigger space for their members to gather, meaning that this *lopo* is more useful compared to *ume kbubu* and family's *lopo*. The food storage area on the roof allows members to store maize and other crops. If a member does not have sufficient food for his household, he can retrieve food from the group's food storage, with the group's approval. In regards to the usefulness to government in all levels, all buildings are not specifically incorporated to the food security policies and

development plan. However, most village officials, who are mostly males, are members of farmers groups meaning that they have more interconnection with the efforts of farmers groups than the officials in provincial and national level.

The fifth category is the usefulness of each building to the overall food security of Timor Tengah Selatan. All buildings are incorporated to the lives of the communities. The analysis of the last four categories contributes to the analysis of this category. Food security relates to how people have access to food, how people utilize food to be healthy, and how people assure the availability of food through their own production. How can each building contribute to food security in the communities in Timor Tengah Selatan?

Utilizing *ume kbubu* allows households to store their food and seeds for the next planting season. The building itself is useful especially after harvest season when all crops are stored up in the attic. Because food preparation takes place inside the building, the smoke that comes from the fire pit decreases the chance of crop damages.

The family's *lopo* is used not only as a living room but also as a place to store food. However, fewer households are using the family's *lopo*.

Large-scale actors like farmers groups are seeking ways to modify the use of granaries for the benefit of their members by expanding the idea of household granaries into the form of *lopo*. All buildings contribute to the efforts in achieving food security. However, the idea of building a farmers groups' granary in the form of *lopo* raises questions of who will access the food that will be stored in the building.

Towards the end of my research, the farmers groups that built their *lopo* consisted of only male members. In a previous chapter I had explained the usage of *ume kbubu* and how women are more involved in the process of utilizing food. Will these women be able

to retrieve food from their husbands' farmers groups if their household has an insufficient amount of food? Only members are allowed to make decision in regards to making short loans and distribution of food. The issue of limited access to farmers groups' *lopo* raises questions concerning food security in Timor Tengah Selatan. Topics that can be included in future research of traditional knowledge and the achievement of food security include an in-depth analysis of the roles of farmers groups in utilizing the farmers groups' *lopo* and investigation of the social complexity within the communities of Timor Tengah Selatan to explain the varieties of *ume kebubu* practices.

APPENDIX A

INTERNSHIP WITH ANIMASI

To gain a deeper understanding of the local context and life in the area, I interned with Yayasan Aksi Kemanusiaan (ANIMASI),¹⁰⁰ a local NGO that established an assistance program called “*Desa TTS yang Berkecukupan Pangan Melalui Lumbung Kampung*,”¹⁰¹ or in short *Lumbung Kampung*, which specifically works with farmers groups and village officials in 10 villages within the regency of Timor Tengah Selatan. Matheus Krivo, who describes himself as a church activist, acts as Director of ANIMASI. The organization has two divisions: *Lumbung Kampung* and World Food Programme (WFP). The *Lumbung Kampung* division has a total of 7 people: a male coordinator, a female administrator, two female field staff, and three male field staff. The WFP division has only two staff. The work of both divisions covers 10 villages in TTS Regency. Despite the organization’s two divisions, staff members from each division help and coordinate with each other.

The *Lumbung Kampung* became a part of the Australian Community Development and Civil Society Strengthening Scheme (ACCESS) Phase II. Two direct partners are served by the organization. The first partner is Village Government. It includes Head Village, Secretary of Village, and four main staff. The second partner is *kelompok tani* or farmers groups.¹⁰² Both partners are from the ten villages: Noemeto,

¹⁰⁰ English translation: Humanity Action Foundation.

¹⁰¹ English translation: Villages in TTS Become Food Secure by Building Village Granaries.

¹⁰² Farmers groups were set up by the Ministry of Agriculture extension service. To be recognized by the Ministry of Agriculture, a new group needs to meet minimum requirements such as number of members

Nusa, Olais, Oekam, Oepliki, Naip, Eno-neontes, Oof, Naukake, and Bone. These villages represent five districts under the regency. Currently there are 60 farmers groups, with almost 1,200 members, that receive direct support from the organization. Three types of farmers groups are included in the program: males, females, and mixed. The total number of members in each group varies from 20 to 30 people who mostly live in the same village.

Lumbung Kampung is an expansion idea of *ume kbubu* which is found in the backyard of most households in the villages. ANIMASI believes that broadening the use of the *lumbung* will strengthen the community. *Lumbung Kampung* is not only about building a bigger *lumbung* but it incorporates seven actions that are sustainable for the community. These seven actions included in *Lumbung Kampung*:

1. To expand the cultivation of local crops to meet the needs of both household and market.
2. To develop animal husbandry as an alternative strategy to ensure food security.
3. To use organic fertilizer and organic pesticides.
4. To utilize local corn seeds.
5. To build a terrace in every yard to decrease the practice of swidden.
6. To build *embung* for harvesting rainwater in every household.
7. To integrate agriculture and animal husbandry to create a better economy.¹⁰³

and types of production. There are four levels in the farmers group program. Each level has certain minimum requirements. Once a group becomes more advanced, they can move up to a higher level.

¹⁰³ Translated directly from ANIMASI Profile Book p. vii

APPENDIX B

RESEARCH QUESTIONS (HOUSEHOLD) IN *BAHASA INDONESIA*

Informasi Umum

Nama :

Jenis kelamin :

Umur :

Desa :

Kondisi pangan rumah tangga

1. Berapa jumlah anggota keluarga/ orang yang tinggal di rumah?
 - a. Anak:
 - b. Dewasa:
 - c. Lansia:
2. Sumber makanan di dapatkan dari?
 - a. Kebun sendiri
 - b. Beli, dimana?
 - c. Bantuan, dari?
 - d. Lain-lain:...
3. Jelaskan bagaimana cara Anda menggunakan makanan (per hari)

Lahan Kerja

1. Siapa yang memiliki lahan tersebut?
2. Seberapa besar?
3. Jelaskan penggunaan lahan tersebut beserta hasilnya;

Kelompok Kerja

1. Apakah Anda menjadi anggota dalam kelompok kerja di Desa? Jika iya, apa jenis kelompok kerja? Dan sudah bergabung sejak kapan?
2. Apa motivasi Anda dalam mengikuti kelompok kerja tersebut?
3. Apakah partisipasi Anda dengan mengikuti kelompok kerja membawa pengaruh terhadap kesejahteraan keluarga Anda?

Lumbung Keluarga

1. Apakah Anda mempunyai Lumbung Keluarga? Sejak kapan?
2. Apa motivasi Anda dalam membangun lumbung keluarga?
3. Bagaimana cara penggunaannya?

APPENDIX C

RESEARCH QUESTIONS (HOUSEHOLD) IN ENGLISH

General Information

Name :

Sex :

Age :

Village :

Condition of household

1. How many people currently live in your house?
 - a. Children:
 - b. Adults:
 - c. Elder:
2. How do you get your food?
 - a. My own yard
 - b. Purchase, where?
 - c. Aid, from?
 - d. Others:...
3. Explain how you utilize your food. (If possible, average consumption per day)

Land

1. Who owns it?
2. How big is it?
3. Explain how you utilize the field including crops.

Enterprise Group

1. Are you a member of an enterprise group in your village? If yes, what group and when did you join?
2. What motivates you to join the group?
3. Does your participation affect the living condition of your household?

Family Barn

1. Do you have a family barn? If yes, since when? If not, why?
2. What motivates you to own one?
3. How do you utilize it?

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